

when the males, in companies of from three to six, hold their dancing-parties on the high trees. Females on the wing bearing nesting-materials were often seen, but for a long time no nest could be discovered. The males were also observed with like materials in their bills, though they generally dropped them again. At the end of October a young bird made its appearance on the mountains behind Butaueng on Huon Gulf. At this time of the year the rainy season (S.E. monsoon) generally ceases, and the dry N.W. monsoon then prevails till the beginning of April. The moulting of the Bird of Paradise begins at the end of October; in January the gorgeous new feathers begin to sprout, but it is only in July that the breeding-plumage becomes fully developed in its finest phase. The brothers Geisler once observed this Paradise-bird robbing the nest of *Chalcophaps stephani*; a specimen kept in captivity also sucked other eggs with avidity.

According to the present state of our knowledge, *P. augustæ-victoriæ* has only a narrow range along the borders of Huon Gulf, north of which, in Astrolabe Bay, *P. finschi* occurs, and in South and South-east New Guinea *P. raggiana*, which is represented on the d'Entrecasteaux Islands by *P. decora*. It appears that red and yellow Paradise-birds do not occur together, but represent each other. According to the Geislers, *P. augustæ-victoriæ* never changes its hunting-ground.

XLIV.—*Field-Notes on the Birds of Estancia Sta. Elena, Argentine Republic.* By A. H. HOLLAND. *With Remarks by P. L. SCLATER.*

[MR. HOLLAND has sent me specimens of all these species for examination. I have verified the names, and have added a few remarks where necessary.—P. L. S.]

1. *MIMUS TRIURUS* (Arg. Orn. i. p. 8).

Rare, arriving here in November. The iris of this specimen was certainly pale greenish, so Mr. Hudson, who calls it

“orange-red” (Arg. Orn. i. p. 8), appears to have been mistaken, and Azara to have been correct, unless the variation be due to sex or age.

2. *COTURNICULUS PERUANUS* (Arg. Orn. i. p. 60).

Fairly common throughout the year, in winter, living, during the daytime, in small companies, and at sunset collecting in large numbers to roost amongst the tall herbage. When thus collected together they break into their feeble twitterings.

In spring-time the flocks break up, and the birds pair off, scattering about the quintas and plantations, though a few resort to the camp. During the breeding-season the plumage becomes much darker. The male at this season sometimes soars to about 30 feet in height, with head thrown back and the feathers erected, tail raised and expanded, the wings beating quickly. During this performance the bird twitters a short feeble song, striving after high notes, but failing sadly, as if it possessed a sore throat. In habits this species is shy and retiring, preferring to run along at a great pace with its body crouched down, resembling a mouse, to flying away, when disturbed. It perches alike on trees, weeds, buildings, and elsewhere.

The nest is placed on the ground under a tuft of grass, and is composed of dry grass, slightly lined with horseshair. The eggs are three, white, pear-shaped, and rather shiny.

3. *CORYPHOSPINGUS CRISTATUS* (Arg. Orn. i. p. 48).

Obtained on July 3rd, after a heavy wind. Iris black.

4. *POOSPIZA TORQUATA* (Arg. Orn. i. p. 51).

Several of these birds arrived in March and departed a few days ago, evidently on their way north. They frequent trees and buildings, making short flights after insects from the former. In disposition they are tame, but very restless, and mix freely with almost any flock of other Finches, such as Chingolas and *Sycales*. They utter a faint but pleasing song. Their flight is short and in curves. The belly contained a few insects and minute seeds.

[Mr. Holland's specimen, about which he was in doubt, is

certainly a young example of this species, which had not been previously met with in this part of Argentina.—P. L. S.]

5. CATAMENIA ANALIS (Arg. Orn. i. p. 57).

Rare, arriving in November. Iris hazel. It inhabits the weeds and trees, and is of a very shy disposition. It feeds chiefly on grass-seeds, and in its flight closely resembles *Chrysomitris icterica*, for which, in a bad light, it might be easily mistaken.

[Mr. Holland sends examples of both sexes of this Finch, which is new to this part of Argentina. In the short description in 'Argentine Ornithology' the white wing-spot is not mentioned.—P. L. S.]

6. LEISTES SUPERCILIARIS (Arg. Orn. i. p. 108).

On November the 20th, when I was chasing deer, I came across a specimen of this species with its primaries and secondaries of both wings pure white. It had a very striking appearance with its red breast, black body, and white wings. It was amongst a flock of this species, and in all other respects was similar. I induced the "peones" to try to "bolar" it, but without success, and next day it had disappeared from the spot.

7. ALECTRURUS RISORIS (Arg. Orn. i. p. 123).

Plentiful everywhere, arriving in September and departing in February. The males arrive first and the females, along with their last year's young, soon afterwards. These young birds at first closely resemble each other, but the males soon change, first one bare tail-feather for a webbed one, then the other; next the black ring appears on the breast, but the plumage otherwise remains brownish. The old male courts his mate, who perches on a tall weed or grass-stalk, by flying round her in small circles, but keeping on her level, in a perfectly upright position, having his tail and head in the same straight line and the wings fluttering at a great pace, with his breast always facing the female. The male also occasionally takes an upward flight much resembling that of a butterfly, with tail closed and elevated on ascending, but slightly expanded and with the vanes inclined inwards on

descending, the body being horizontal. At other times he chases the female for a comparatively long distance, flying fairly fast in a horizontal line with the head and tail stretched out and resembling a thick arrow. In habits the male is rather bold, while the female and young are shy. They are always quietly moving about, flying from one clump of herbage to another, catching insects as they pass. The webbed side of the two tail-feathers is always carried uppermost, the bare side being below.

The nest is cup-shaped, placed on the ground under a tuft of grass, and is composed of dry grass and lined with a few feathers. The eggs are three in number, of a pure pale cream-colour; they are blunt and brittle.

8. *HAPALOCERCUS FLAVIVENTRIS* (Arg. Orn. i. p. 137).

Fairly common in the reeds, where it breeds. It arrives in September, and departs in February. Iris hazel.

9. *HABRURA PECTORALIS* (Arg. Orn. i. p. 138).

Fairly common, arriving in October and departing in February. These birds inhabit the quinta, and are of a very restless disposition before nesting, constantly hurrying from one weed-stalk to another in search of insects. They prefer long grass and weeds, and, as their flight is very low and straight, are hard to perceive. They live in pairs, and during the breeding-season the male is most pugnacious, driving away from his nesting-place any stranger of the same species in a most determined way. On one's approaching the nesting-place the male has a peculiar habit of rushing up into the air some 20 feet, making a loud whirring noise (with its wings, I fancy) to intimidate the intruder; at other times it is very shy and easily escapes observation.

This bird breeds at the beginning of November; the nest is cup-shaped, placed some inches off the ground in a clump of weeds, several stalks being interwoven in the structure, by which it is suspended. It is a minute bit of work, being 1 in. $\times$ $1\frac{1}{2}$ in. deep in internal measurement, and composed of fine rootlets thickly lined and interwoven with grass-down, so that it has a white appearance. It is far superior to most nests in its firmness and beauty. The eggs are three

in number; they vary greatly in shape, but are of a uniform faint yellowish tinge in colour.

10. *MYIARCHUS FEROX* (Arg. Orn. i. p. 156).

This species also appeared at the same time as the other migrants and passed a week here, when it frequented the trees, making rapid flights after insects. Its flight is very erratic and powerful. Sometimes it darts upwards to a good height with great velocity, at others it dashes through the branches at a reckless pace. It was very wary and hard to approach. The two or three birds of the same species that were here went off to the northward.

11. *EMPIDONOMUS AURANTIO-ATRO-CRISTATUS* (Arg. Orn. i. p. 157).

Another doubtful species, obtained at the same time. This Tyrant also inhabits trees, and catches insects on the wing, but is less shy than the former and does not possess such a powerful flight.

[The specimens sent (nos. 180 ♂ and 181 ♀) are both young birds of the Black-and-yellow-crested Tyrant, which in a subsequent communication Mr. Holland tells me is "fairly common" in his district. The head is black, but there is a single feather of the orange crest just coming up in the male: the superciliaries are pale brownish, and the wings are broadly edged with fulvous.—P. L. S.]

12. *PHYTOTOMA RUTILA* (Arg. Orn. i. p. 164).

I think this is a female of the Plant-cutter, but, not being acquainted with the birds, cannot say for certain. Several of this species, all hens or immature birds, stayed here a few days on their way north or west, frequenting the trees and catching insects, after the manner of the Tyrants, in short flights from the topmost branches of trees. Until I shot this specimen I imagined that it was one of the Tyrannidae.

[The skin sent (174 ♀) is undoubtedly that of a female of *Phytotoma rutila*.—P. L. S.]

13. *SYNALLAXIS SORDIDA* (Arg. Orn. i. p. 184).

This species inhabits the undergrowth of the monte, flying low and swiftly from one tree to another. It is very shy

and restless; when feeding it does so after the manner of a Tree-creeper, searching the bark for insects, climbing upwards around the trunk and swinging under branches, until, having passed the undergrowth, it darts to the base of another tree.

[The two specimens sent (178 ♂ and 182 ♀) are both young birds, and show no traces of the fulvous throat-spot which distinguishes the adult.—P. L. S.]

14. *SYNALLAXIS*, sp. inc.

[The specimen sent (176 ♂) is quite a young bird in immature dress, probably referable to *S. albens* (Arg. Orn. i. p. 179).—P. L. S.]

—15. *FALCO FUSCO-CÆRULESCENS* (Arg. Orn. ii. p. 69).

Fairly common from March to August. It seems to consider "*Tinnunculus cinnamominus*" its special enemy. I have often seen the latter chased away from the roosting-place of the former when it had ventured too near. The chase is very spirited, the smaller hawk, by its abrupt turns, easily baffling its pursuer.

[The skin sent (162 ♂) is that of a male in full plumage. "Iris black."—P. L. S.]

XLV.—*A Review of the Species of the Family Pittidæ.*

By JOHN WHITEHEAD.

THE objects of this paper are: to bring up to date our knowledge of the *Pittidæ*, to correct a few errors in previous descriptions of the colours of the soft parts, to propose to unite certain species which I do not regard as distinct, to separate others which appear to me to have been wrongly united, and to suggest a more natural arrangement of the members of the family.

The colouring of the soft parts of these birds, when recorded, appears to have frequently been taken from the dried skins. For example, the feet of *Eucichla boschi* are variously described as "brown" (Selater, Cat. Birds B. M. xiv. p. 447), "olive-brown" (Wallace, *Ibis*, 1864, p. 105), and "dirty blue in front,